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# An Analysis of Infrastructure Conditions and Pedestrian Safety in Capitol East

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# An Analysis of Infrastructure Conditions and Pedestrian Safety in Capitol East

## **Abstract**

The residents of Capitol East have embarked on an effort to update their neighborhood revitalization plan. The neighborhood is located adjacent to the State Capitol Complex and location is a significant asset for the neighborhood. Residents report that they like being close to stores, schools, and the downtown. However, proximity is not enough. Additional resources are needed to “Make [the community] safe for the people who live here (resident survey).” Infrastructure investments can help improve the physical conditions of the neighborhood, improving quality of life and enhancing connectivity to the rest of the city.

## **Disciplines**

Urban, Community and Regional Planning

## **MEMORANDUM**

### **An Analysis of Infrastructure Conditions and Pedestrian Safety in Capitol East**

Prepared for the Neighborhood Development Division  
Office of Community Development  
City of Des Moines

May 2014

**By Joseph W. Drahos**

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#### **THE NEIGHBORHOOD PROJECT**

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Department of Community and Regional Planning  
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Department of Community and Regional Planning

**ACKNOWLEDGEMENTS:**

This memo was produced through the Neighborhood Project (TNP), a partnership between the City of Des Moines, Office of Community Development and the Department of Community and Regional Planning (CRP) at Iowa State University. TNP integrates place-based research, educational outreach, and community engagement to improve the development and design of urban neighborhoods, creating communities that are more sustainable, more equitable, and more robust. The heart of this effort is the CRP Community Planning Studio where students work with a designated neighborhood and neighborhood association to create an updated neighborhood revitalization plan.

Special thanks to Marie Louise Ryan who provided editorial assistance for the final version of this document.

The residents of Capitol East have embarked on an effort to update their neighborhood revitalization plan. The neighborhood is located adjacent to the State Capitol Complex and location is a significant asset for the neighborhood. Residents report that they like being close to stores, schools, and the downtown. However, proximity is not enough. Additional resources are needed to “Make [the community] safe for the people who live here (resident survey).” Infrastructure investments can help improve the physical conditions of the neighborhood, improving quality of life and enhancing connectivity to the rest of the city.

In September 2013, the Capitol East planning team<sup>1</sup> canvassed the neighborhood to identify issues important to community residents. We collected 76 surveys. Fifty percent of these survey responses (38 of 76) indicated infrastructure as a top priority. Traffic and vehicle speeding was the number one concern (22 of 38 responses, or 58%). Neighborhood streetscapes received the next largest number of responses. Alternatively, the location of the neighborhood and its proximity to downtown were seen as a great asset of the community. For these reasons infrastructure was selected as a priority area for Capitol East’s neighborhood plan update. We split our research into three topics: pedestrian safety, sidewalk and street conditions, and neighborhood appearance.

### **Pedestrian Safety**

In researching the safety concerns expressed by neighborhood residents, we decided to look at the statistics provided by the Iowa Department of Transportation to see if residents’ concerns translated into quantifiable data. In particular we wanted to know if there were real issues of safety when it comes to pedestrian mobility throughout the neighborhood. To determine if pedestrians’ perceptions matched recorded data, we researched the crash statistics and prepared a geographic analysis of the types of crashes that occur in the neighborhood as well as the locations of these crashes. See Appendix A for a detailed description of the methodology used for this analysis.

#### The crash data yielded the following findings:

- 1) There are high concentrations of vehicle accidents along the East 14<sup>th</sup> and East 15<sup>th</sup> corridors between I-235 and Walnut as well as at the intersection of Grand Avenue and 18<sup>th</sup> Street where Grand Ave and Hubbell Ave fork.
- 2) There are high concentrations of pedestrian accidents at the same intersections (above) with the addition of the intersection at Dean Ave and East 16<sup>th</sup>.
- 3) Almost 50% of all pedestrian accidents involved youths under the age of 18.
- 4) Slightly more than 50% of all pedestrian accidents involved walkers and slightly less than 50% involved bikers.

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<sup>1</sup> The Capitol East Planning team included Johnny Alcivar, Anna Blumstein, Joseph Drahos,

The results showed that hot spots do exist and most crashes tend to occur in concentrated areas. Our findings indicate not only that certain areas contain crashes, but also most of the accidents involve pedestrians and a great number involve young people. Additionally, the hot spot for crashes is in the immediate vicinity of Capitol View Elementary School. These findings indicate that further research should be conducted to explore how the city and neighborhood can increase the safety of those walking in this area, particularly the safety of young people.

### **Sidewalk and Street Conditions**

According to the initial survey, a large number of residents choose to live in Capitol East because of its proximity to certain locations (i.e. school, church, work, businesses and down town). We examined the conditions of existing infrastructure in order to assess the quality of travel within the neighborhood. Because most comments centered on pedestrian-based transportation (walking and biking) and few on street quality, our analysis focused on pedestrian infrastructure such as sidewalks and crosswalks. We divided the process into two different assessments: 1) assessing the quality/condition of existing sidewalks by identifying blocks that did not have sidewalks; and 2) identifying sidewalks that were partial, mostly, or entirely overgrown.

To research the conditions of sidewalks and streets, we walked the neighborhood and noted the conditions of sidewalks and streets in every block. Once we collected this initial data, we entered it into GIS to conduct a spatial analysis. This analysis allowed us to see that there are certain areas of the neighborhood that have a greater concentration of sidewalk and street maintenance problems. See Appendix B for a detailed description of the methodology used for this analysis.

#### The infrastructure assessment yielded the following findings:

- 1) 23% of the blocks were identified as having deficient sidewalk conditions. 18% were indicated as not having any sidewalks at all, while 5% were overgrown. It should be noted that while exact percentages of sidewalk types were not calculated, a vast majority of overgrown sidewalks were brick.
- 2) Most of the deficient sidewalks were spatially located along the southern and northern borders (along the railroad and interstate 235, respectively).
- 3) A lack of crosswalk infrastructure was identified as being one of the largest deficiencies in terms of pedestrian issues. Almost half of these issues were attributed to a lack of crosswalk paint, signage, or other pedestrian safety infrastructure.
- 4) Most of the missing crosswalk infrastructure was located near the East 14<sup>th</sup>/East 15<sup>th</sup> corridor and along East Grand.

Our findings reveal that there is a lack of crosswalks in the vicinity around Capitol View Elementary (an area that overlaps with the hotspot we found for crashes) and across East 14<sup>th</sup> and 15<sup>th</sup> Streets. While correcting these deficiencies will require more significant resources, some issues such as minor sidewalk, pothole repair, and missing signage can be easily fixed.

### **Neighborhood Appearance**

Based on the survey findings, we selected four sub-topics to research for the neighborhood appearance of Capitol East: streetscaping, alleys, vacant lots, and public space. We used a visual preference survey to determine the desires of residents regarding these four areas. The visual preference survey is a tool for gaining feedback and gauging resident preferences. The images used are meant to help residents visualize alternatives, and the designs contained within are examples of design strategies for addressing infrastructure improvements. We administered this survey at public locations in the neighborhood on two different dates in the fall of 2013. We had a mixed results and not a statistically significant number of responses. However, we feel that the responses we did receive do shed light on residents' desires and offer a potential direction that can be taken regarding the physical appearance of Capitol East. See Appendix C for a detailed description of the methodology used for this analysis.

The visual preference survey yielded the following findings:

- 1) Residents preferred trees and native plants at 46% and 41% (respectively) for streetscaping.<sup>2</sup> A smaller proportion (13%) preferred grass medians.
- 2) For alleys, there were 0 votes for leaving the alleys as they currently exist. Resurfacing alleys and transforming them to living gardens received 45% and 55%, respectively.
- 3) Preferences for vacant lots were a little more evenly split with 43% preferring them to become community gardens, 33% preferring them to be maintained, but kept as open lots, and 24% wanting them landscaped.
- 4) For a public plaza residents favored permanent structures (64%), followed by temporary structures (31%), and leaving the area as the existing grass lot (5%).

The responses to the visual preference survey revealed several strong opinions. First, all respondents agreed that the current appearance of alleys was not an option AND that any physical improvement would benefit the neighborhood. Residents also showed a strong preference for landscaping in medians, at least along East 14<sup>th</sup> and East 15<sup>th</sup> Streets. In terms of public space, the residents of Capitol East showed overwhelming support for the creation of a

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<sup>2</sup> Streetscaping options focused on the appearance of medians throughout the neighborhood and was intended to inform the design of a future gateway for the neighborhood as well as potential city improvements of public right of ways.

*permanent public plaza* in the neighborhood. They saw a plaza as a place that would help to build community and bring people together and that would enhance the identity of the neighborhood.

## **Conclusion**

Two key issues arose from our research: sidewalk maintenance and pedestrian safety. In particular, the lack of pedestrian crossings<sup>3</sup> along East Grand and East 14<sup>th</sup>/15<sup>th</sup> corridors have a negative impact on the community. Currently, pedestrian crossings along the East 14<sup>th</sup>/15<sup>th</sup> corridors are located every other block from Interstate 235 to the southern intersection where East 14th and East 15th merge. This is inadequate to accommodate pedestrian safety across the corridor, especially in light of how many young people use these roads to reach schools both within and directly adjacent to the neighborhood. It also contributes to a sense of separation between Capitol East and the Capitol Complex.

While inadequate pedestrian crossings is an issue in the well-travelled parts of the neighborhood, most of the non-existent sidewalk infrastructure in the neighborhood is located in the southern (south of Dean Ave), north-eastern (in the vicinity of Ashfield park), and somewhat in the eastern part (east of 18<sup>th</sup> Street) of the neighborhood. If one overlays the sidewalk issues on top of the conditions map, then one would see that the pothole and tree overhanging issues fall in line with the southern, north-eastern and eastern areas of the neighborhood as well.

Finally, infrastructure improvements are also about sense of place and quality of life. Residents would like to see improvements to their alleys and streetscapes. A gateway feature at the entrance to the neighborhood would call attention to passersby that this is a community where people live and thrive. Finally, a plaza on East Grand would provide residents with a place to gather and learn about one another while also contributing to their neighborhood's sense of place.

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<sup>3</sup> Pedestrian crossings include crosswalk paint, crossing count-down timers, signage, etc



## **APPENDIX A: CRASH DATA**

The Iowa Department of Transportation tracks vehicle accident data for every year throughout the last decade; this information was used as the primary source for examining crash data and traffic safety issues.

### **1. Methodology**

In order to properly assess the traffic safety concerns, we first needed to identify where the accidents were occurring. After finding the locations of all of the accidents, we then began the process of identifying trends such as location, type of accidents, age of victims, severity, time of day, etc.

#### **a) Data collection**

The Iowa Department of Transportation tracks all vehicle accidents in the state of Iowa for a period of up to ten years. The current years available include all of the year 2003 through the first quarter of 2013.

This data is organized in three sections: point shapefiles (by year) for use in mapping software such as ESRI's ArcGIS; 17 tables to be joined to the point shapefiles containing all reported information pertaining to the crashes; reference documentation explaining the meaning of all of the data fields used in the tables.

#### **b) Crash Analysis – action steps (*in ArcGIS*)**

1. Create buffer around the neighborhood boundary
2. Create buffer around the roads
  - i. Dissolve the road buffer so that it is one single feature
3. Select by location using the neighborhood boundary as the source and the crash points as the target
4. Run the Point Density tool in ArcGIS to produce a heat map indicating densities across the entire neighborhood
5. Run the Extract by Feature tool in ArcGIS to only select the density data that coincided with the roads
  - i. Using the Point Density layer as the target and the Road Buffer as the source
6. Join crash tables to the crash points, using the following tables:
  - i. General crash data
  - ii. Non-motorist data
  - iii. Date/time data
7. Select by attribute and symbolize as appropriate
  - i. Based on age (< 18 years of age)

- ii. Based on type (walk, bike, skate, other)
- 8. Summarization of the corresponding attributes tables produced the totals used to populate the statistics

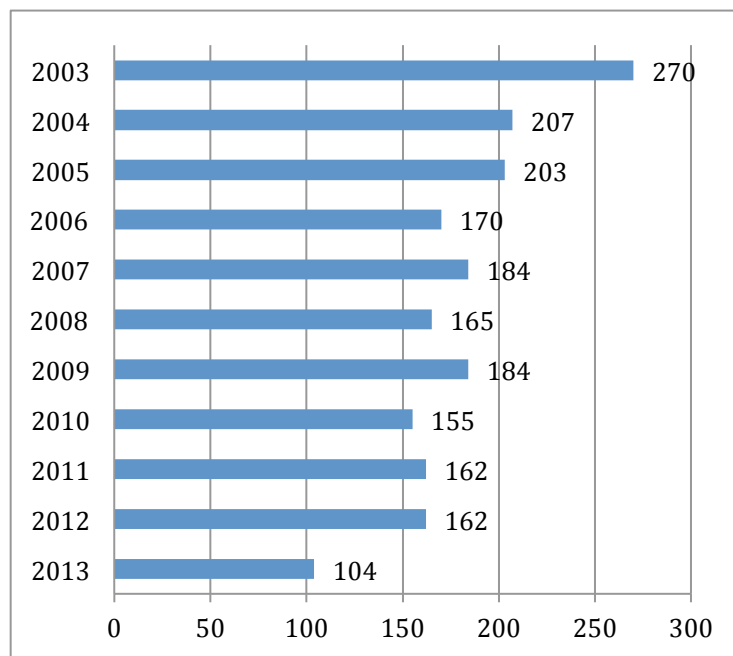
## 2. Results

The results were then divided into two sections; one section that included all crashes (vehicle and pedestrian) between 2003 and the first quarter of 2013, and the second section that included only pedestrian crashes between 2003 and the first quarter of 2013.

### a) All Crashes

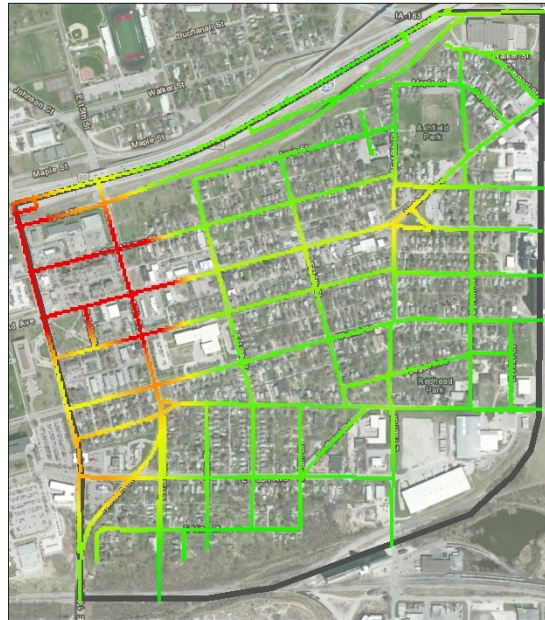
*By Year:* Except for 2003 (in which there were 270 crashes) and 2013 (in which complete data is not currently available yet), total crashes remained fairly consistent (see Figure 1). The overall average between 2003 and 2013 is 178.72 crashes per year out of 1966 total crashes based on available data. We found no information explaining the elevated 2003 crash numbers. Preliminary examination of the Capitol Park neighborhood displayed a similar spike. The reason for this spike is unknown but worthy of future investigation.

**Figure 1. All Crashes in Capitol East by Year**



*By Area:* The density map (see Figure 2) shows a large concentration of crashes occurring in the SE 14<sup>th</sup> and SE 15<sup>th</sup> corridor between I-235 and tapering off near Walnut street. An outlying area exists in the eastern part of the neighborhood where East Grand and Hubbell Avenues fork into separate streets.

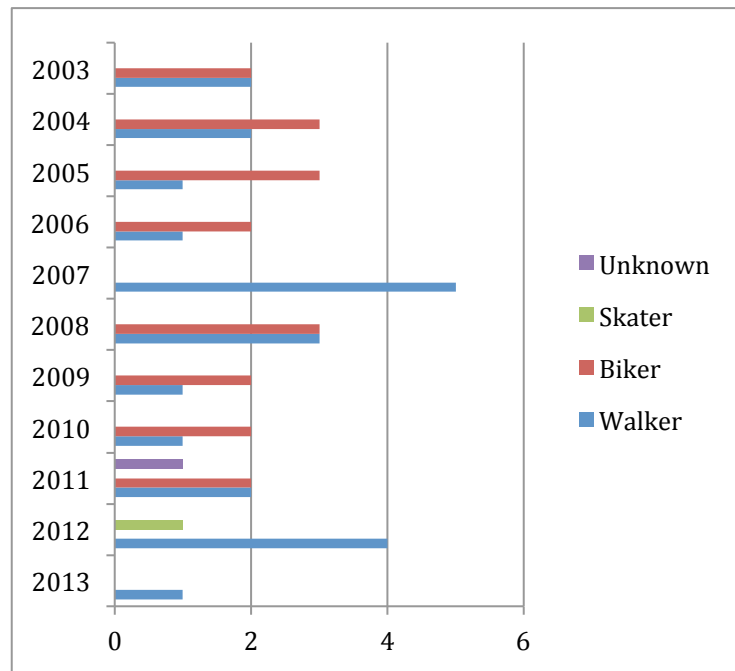
**Figure 2. Density of Crashes in Capitol East, 2003 - 2013**



## b) Pedestrian Crashes

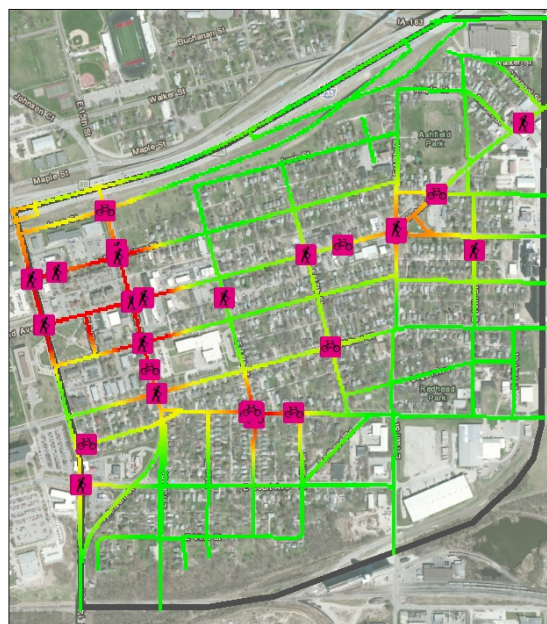
*By Year:* There was a total of 44 pedestrian crashes between 2003 and the 1<sup>st</sup> quarter of 2013 (see ). 2007 and 2012 stood out as different from the other years in that almost all pedestrian crashes involved walkers with very few or no other types of pedestrians. Types of pedestrian crashes were nearly split evenly between walkers and bikers with only single instances of skater and other types of crashes. The breakdown for pedestrian crashes is: Walkers (23), Bikers (19), Skater (1), and Other (1).

**Figure 3. Pedestrian Crashes in Capitol East by Year**



*By Area:* The density map (Figure 4) exhibited similar trends to the overall crash density map (Figure 2) with a large concentration of crashes occurring in the SE 14<sup>th</sup> and SE 15<sup>th</sup> corridor between I-235 and tapering off near Walnut Street. There were also two significant differences: one was the intersection of East Grand and Hubbell in which the intensity of pedestrian crashes increased. The other difference was a new outlier that appeared 1 block south of the Capitol View elementary school which had a comparatively large concentration of bike crashes.

**Figure 4. Density of Pedestrian Crashes in Capitol East, 2003 - 2013**



### **3. Conclusion**

Based on the results found from the crash analysis, East 14<sup>th</sup> and East 15<sup>th</sup> stood out as primary concerns for traffic safety with parts of East Grand following close behind. These concerns are based on the pedestrian accidents that occur in roughly the same areas. While crash data is useful in identifying the clusters of high accident densities, one needs to also consider the data examined in the route survey and infrastructure assessment to gain an overall appreciation of the situation. The route survey indicated high levels of local traffic along the corridors indicated above while the infrastructure assessment identified a number of intersections in which crosswalks were not present. The lack of crosswalks combined with the crash analysis point to low levels of pedestrian safety in specific areas along the high traffic corridors in Capitol East.

## APPENDIX B: INFRASTRUCTURE ASSESSMENT

This pedestrian infrastructure assessment provides insight into some of the simpler problems that the City of Des Moines can address in order to create some initial momentum and capitalize on early success to drive longer-ranged projects in the neighborhood. For this analysis, we conducted simultaneous assessments of both sidewalk conditions and pedestrian infrastructure.

### 1. Methodology

The engagement team used a map of the neighborhood (right) and assigned several blocks to each of the four members of the team. Each member had a copy of the map for marking missing or overgrown sections of sidewalk and/or missing or deficient pedestrian infrastructure.

Prior to beginning the assessment, the team established a list of guidelines on which to base the assessments. Sidewalks were identified as either missing or overgrown with grass, weeds, or soil. If approximately half or more of the sidewalk was covered, then it was considered overgrown. Deficiencies in pedestrian safety infrastructure included major cracks that would be an obstacle to a person with disabilities, large potholes, missing curb cuts, overhanging vegetation, and a lack of crosswalk infrastructure.





**From left to right: cracked sidewalk, overgrown sidewalk, no curb cut, no crosswalk infrastructure**

After conducting the assessment, all of the hardcopy maps with the conditions and issues annotated were gathered and digitized into ArcGIS. GIS steps included:

- **Conditions:** In order to display sidewalk conditions, a line feature class based on roads was used to select portions of the road that corresponded to the missing or overgrown sidewalks and display it with a different line color.
- **Issues:** To display the specific issues (i.e. pot holes, missing safety infrastructure), a point feature class needed to be created.

## Conditions

1. Add a field in the road feature class to be used as the condition identifier. I used a field with a short integer type with a 1 representing a missing sidewalk and a 2 representing an overgrown sidewalk.
2. Select the roads that are within the neighborhood using the Select-by-Location tool using the following settings:
  - i. **Selection method:** *select features from*
  - ii. **Target layer:** *road feature class*
  - iii. **Source layer:** *neighborhood boundary*
  - iv. **Spatial selection method:** *Target layer(s) features intersect the Source layer feature*
3. Conduct an 'Edit' of the roads feature class, select all of the roads in the neighborhood area and run the 'Planarize Lines Tool'  in the Topology tool set. The Planarize Lines tool will break the roads up into segments based on where the lines intersect each other.
4. Select each segment and input the appropriate value in the condition field.
  - i. For segments to be broken into smaller sections, use the 'Split Tool'  then reselect the appropriate segment and input the proper value.
5. To symbolize, open the layer properties and, under the symbology tab, select categories and unique values. Add the values for the missing and overgrown sidewalks (optional: remove all the other values, which will mostly be sidewalks with no issues).

## Issues

1. In ArcCatalog or in the Catalog tab within ArcMap, navigate to the folder where your data is being stored, right-click and select New... then Shapefile.
  - a. Input an appropriate name
  - b. Select the 'Point' feature type from the drop-down menu
  - c. You may have to select the coordinate system for the new feature
    - i. To do so, click on 'Edit...' then either select 'Import' and navigate to another layer with a known coordinate system or click 'Select' and choose from the list of predefined coordinate systems.
2. In the attribute table, add a new field to represent the values for the different issues. In our issues layer, we used 1 to represent potholes, 2 for no curb cuts, 3 for no crosswalks, 4 for cracked/uneven sidewalks, and 5 for overhanging vegetation.
3. Conduct an 'Edit' of the point feature class and create points on the map where the issues were annotated on the hardcopy maps.
4. While creating points, be sure to have the attribute table open and inputting the appropriate value based on the type of issue.

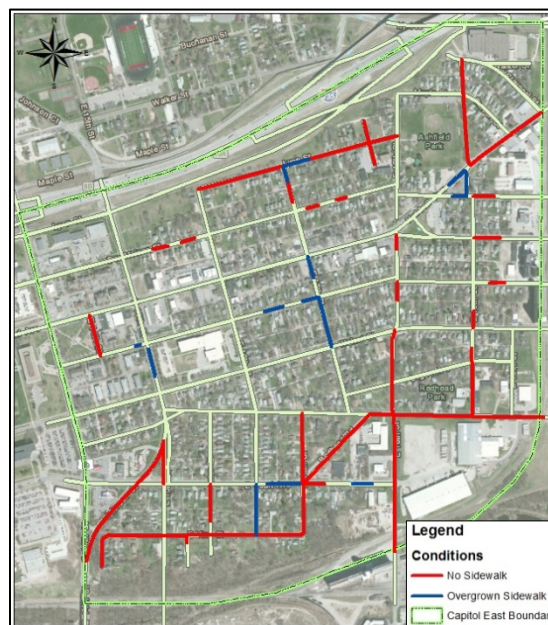


5. To symbolize, open the layer properties and, under the symbology tab, select categories and unique values.
  - a. Add the values for the different types of issues then click on the symbol shape
  - b. In the Symbol Selector menu, scroll through the list of available symbols and click on the desired shape or type a keyword in the search bar to check for symbols that match the criteria.

## 2. Results

Overall sidewalk conditions that were missing or overgrown encompassed 23% of the entire Capitol East neighborhood, of which 18% were missing sidewalks and 5% were overgrown. Most of the missing sidewalks occur along the northern, eastern and southern periphery of the neighborhood. Additionally, most of the notable crosswalk issues occur in areas with the most well developed sidewalk infrastructure. It should be noted that although the team did not track exact numbers on how many sidewalks are made of brick, observations showed that most of the overgrown sidewalks were brick. See Figure 5 for a map of where problematic sidewalk conditions are located.

**Figure 5. Missing or Overgrown Sidewalks**

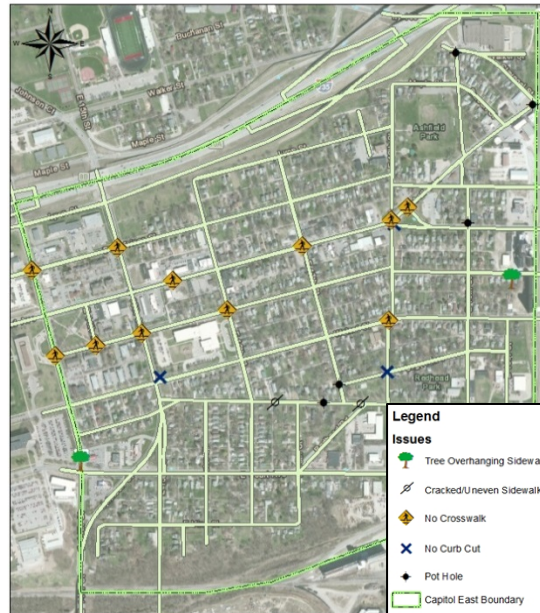


Our visual inspection of sidewalk conditions in Capitol East revealed a total of 23 issues in 5 categories: tree overhang, cracked or uneven sidewalks, no crosswalk, no curb cut, and pot holes. Of the 23 issues, over 61% of them were focused on crosswalk infrastructure (lack of crosswalk paint, lack of crossing signs, no curb cuts). Potholes accounted for 22% of the issues,



and tree overhangs and cracked or uneven sidewalks constitute the remaining 17%. Figure 6 provides a map of where each problem was located.

**Figure 6. Miscellaneous Sidewalk Issues**



### 3. Conclusion

The data suggests (and was confirmed by observation) that most of the developed sidewalk infrastructure is located in the central core and western edge of the neighborhood. These areas encompass Capitol View Elementary School, the East Grand business district and the high-density residential area between East 14<sup>th</sup> and East 15<sup>th</sup> streets. These areas have the most sidewalk and street traffic. This may also partially explain why issues of potholes and sidewalk walkability were only mentioned a few times, while traffic and street crossings were listed much more frequently on the initial door-to-door survey that was conducted in early September.

In the more developed areas of the East Grand and East 14<sup>th</sup>/15<sup>th</sup> corridors, the lack of pedestrian crossings were especially noted. For example, only every other block has a pedestrian crossing (crosswalk paint, crossing count-down timers, signage, etc.) from Interstate 235 to the southern intersection where East 14th and East 15th merge.

## APPENDIX C: VISUAL PREFERENCE SURVEYS

The visual preference survey was divided into four separate categories; Medians/Streetscaping, Alleys, Public Plaza, and Vacant Lots. These categories were derived from the quantitative and qualitative results of the survey that was conducted in early September.

**Medians/Streetscaping:** This strategy was envisioned to occur within the median on Court Avenue and/or as a means of visibly improving the “gateway” to the neighborhood. The neighborhood application mentioned the area along northbound 15<sup>th</sup> street, south of Dean as a target area. Plantings (other than turf) help mitigate storm water runoff and create a sense of place. Studies have shown that well-maintained public spaces create feelings of safety and security among residents.

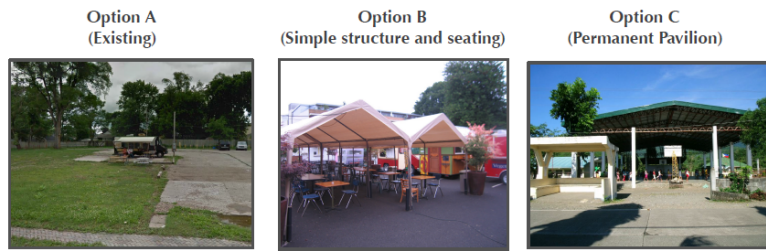


**Alleys:** The condition of alleys in Capitol East has been identified by residents as an issue that needs to be addressed. Improving alley conditions might increase the overall connectivity of the neighborhood by providing car-free areas to walk and bike. This too can be used as a means of cultivating sense of place and improving health and safety. An added bonus is the creation of new “public” spaces which promotes neighborliness and community.



- **Public Plaza:** A public plaza might be utilized in the following ways: food (truck) court; a formal gathering space; festival space; farmer’s market site. The benefits of public plazas include: opportunities for economic development; community-

building; improving neighborhood appearance; making Capitol East a destination in Des Moines; etc.



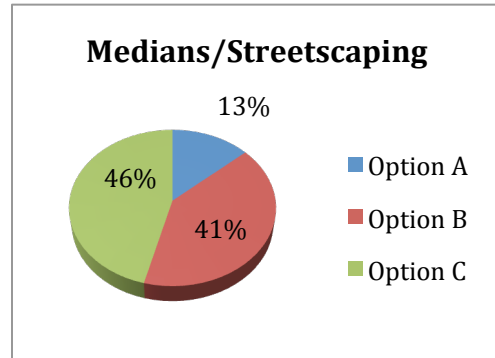
- **Vacant Lots:** Addressing vacant lots is an attempt to make use of parcels that are currently being held by Polk County due to liens or other issues in which the lot is underutilized. More than simply being an eye sore, vacant lots may impact surrounding property values and desirability for people to move in and take residence in the area.



### Visual Preference Survey – action steps

1. Identify prevailing issues from the survey that represent neighborhood appearance, Gateway or other related topics. In our case, we identified streetscaping, alleys, public plaza and vacant lots.
2. Select up to three courses of action for each topic. Sources that drove the decision to utilize certain course of action include:
  - i. **Case Studies:** For alley way uses, we referred to a project conducted in Austin, Texas (see Tab C) as well as, utilized guidance from guest speakers in the studio class who presented their own findings on existing alley uses.
  - ii. **Current Uses:** To provide a balanced perspective, we used existing uses of specific areas in the neighborhood for sake of comparison, as well as to provide the option to residents to “keep things the way they are”.
  - iii. **Survey Feedback:** In addition to using quantitative results to determine the broader topics, we used qualitative quotes, comments and specific feedback for ideas.

3. Find photographs that represent each of the three courses of action for all four topics.
4. Create four separate posters for each topic depicting the three courses of action.
5. Hang the poster then solicited feedback from residents to have them “vote” for their favorite images.
  - i. On a late morning on Saturday, our team hung the four posters outside of a high-traffic plaza in the East Grand business district.
  - ii. Each of our members engaged residents and people who were passing by and gave a short description of each poster, indicating its purpose and describing the scene in the image. This engagement would conclude with the respondents voting on the image which our team members would indicate with a hash mark underneath the image.
  - iii. This process was exercised three different times; on a Thursday afternoon/early evening, on a Saturday late morning/early afternoon, and on a Thursday early/late evening with the Neighborhood Association resulting in approximately 30 respondents total.
6. Once surveying was complete, the tallies were totaled for each image.



## 2. Results

After the raw data was inputted into an Excel spreadsheet, we were able to generate pie charts comparing the different options.

- **Medians/Streetscaping:** The results were fairly split between Option C (trees) with 46% and Option B (native plants) with 41%. Option A (grass medians – current use) represented 13% of the votes.

- **Alleys:** There were no votes for Option A (existing use) with 55% of all votes in favor of Option C (living alley) and 45% in favor of Option B (cleaned and resurface).

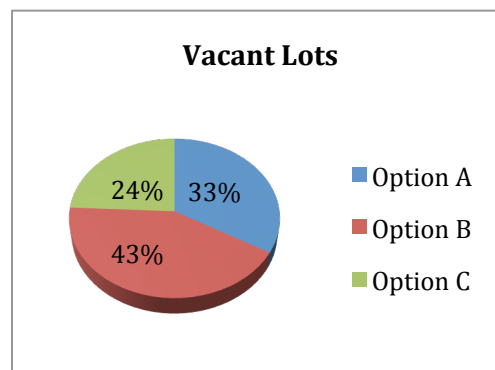
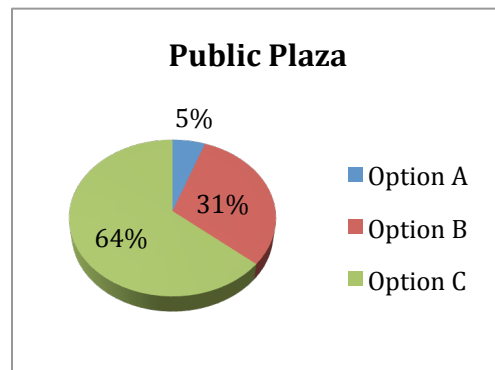
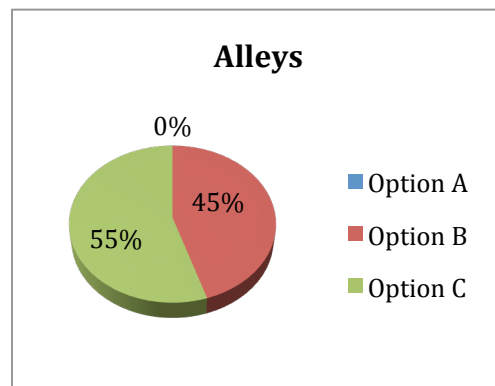
- **Public Plaza:** The voting results were heavily in favor of Option C (permanent structures) at 64% with Option B (temporary structures) at 31%. Option A (grass lot – current use) was last at 5%.

- **Vacant Lots:** Unlike the other results, this issue was fairly evenly split. 43% were in favor of Option B (community garden), 33% in favor of Option A (maintained grass lot) and 24% were in favor of Option C (landscaping).

### 3. Conclusion

There were few results from the visual preference survey that provided solid direction on what the neighborhood wishes to see. Most of the results had at least two options that were fairly close in the number of votes.

Vacant lots served as the primary example of the indecisiveness of the respondents. All three options were fairly close to each other (less than 10% different between each total). However, one thing to note with this issue is that is only discussed



vacant **lots**, and not vacant **buildings**. Observations in the neighborhood showed that most vacant lots were currently being utilized to the maximum benefit of the surround neighbors. These lots were either grassy yards which functioned as green space or else the lots served as parking lots for vehicles due to the restricted amounts of parking on the street. This issue is possibly one of the reasons why the survey results were indecisive, because not many residents thought there are too many issues with vacant lots to begin with and are happy with the current arrangements. It is expected that if vacant buildings were being discussed that there may have been a much greater difference in results.

The results for the public plaza topic also stand out as it is the only topic in which there is a clear direction provided by the resident feedback. Opinion seems fairly consistent and unified in that there needs to be a change to the existing gather space. Most think that a permanent structure of concrete, steel and wood would make the best use of the existing area and enable the business district additional opportunities for different types of events.

Alleyways have been a fairly contentious issue between the residents and the City of Des Moines. While the residents wish to have the alleys resurfaced and paved, the City is currently strapped for funds and is only able to provide graveling once a year after the winter season has subsided. Notable comments, however, indicated that a finished alley may impede utilize work and the use of heavy vehicle traffic. The living alley, while its appearances were met with varying levels of acceptance, many commented on how it would limit the use of the alley and detract from its utilitarian function.

Medians and streetscaping was the least controversial of the topics but only provided a general gauge of opinion on appearances. Most agreed that some kind of landscaping should occur; however, the respondents were divided on exactly what it should look like with many having concerns about upkeep and maintenance.